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Examination Requested

(54)) Method and Apparatus for Patent Search Services

[Abstract]

The present invention relates to a method and apparatus for patent search services for efficiently searching prior art patents. The present invention provides a method and apparatus for patent search services which is characterized by receiving search keywords for searching prior art patents from the outside; searching for prior art patents corresponding to the search keywords from patent publications stored in advance; outputting prior art patent search results; receiving a comment write request for the outputted prior art patents; outputting a comment write screen in response to the comment write request; receiving comments about the prior art patents -- at least on either the patentability with respect to the prior art patents or countermeasure against the prior art patents -- through the comment write screen; and outputting a prior art patent search result screen containing the comments.

[Representative Drawing]

FIG. 1

[Key Words]

Prior art patent, Comments, Countermeasures against Prior art patent, Patent Search, Search Keyword

[Specification]

[Brief Description of the Drawings]

Fig. 1 is a schematic view of the configuration of an apparatus for patent search services according to the present invention.
Fig. 2 shows an example of a search keyword input screen for a patent search.
Fig. 3 shows an example of a search result screen for prior art patents.
Fig. 4 shows an example of a detailed information output screen for a searched patent.
Fig. 5 shows an example of a comment write screen.
Fig. 6 shows an example of a patent search result screen including comments.
Fig. 7 shows an example of an input screen for inputting a subject patent according to the present invention.
Fig. 8 shows an example of a selection screen for selecting a subject patent.
Fig. 9 is a flowchart illustrating the execution for patent search services according to the present invention.
Fig. 10 is a schematic view of the configuration of a service apparatus of a rival company according to the present invention.
Fig. 11 shows an example of a competitor search result screen according to the present invention.
Fig. 12 shows an example of a detailed competitor information screen according to the present invention.
Fig. 13 shows an example of a search result screen including comments of a rival company according to the present invention.
Fig. 14 is a flowchart illustrating the execution of competitor search services according to the present invention.
Fig. 15 is a schematic view of the configuration of an apparatus for patent search services on the Internet according to the present invention.
Fig. 16 shows an example of a detailed result screen for a prior art patent on the Internet according to the present invention.
Fig. 17 shows the operational configuration of an apparatus for patent search services on the Internet according to the present invention.
Fig. 18 is a flowchart illustrating the execution for patent search services on the Internet according to the present invention.

[Explanation of Reference Numerals for Important Portions of the Drawings]

100: Patent publication storage unit
102: Input unit
104: Control unit
106: Display unit
108: Search result storage unit

[Detailed Description of the Invention]

[Objective of the Invention]

[Background of the Invention and Prior Art in the Relevant Field]

The present invention relates to a method and apparatus for patent search services, and more particularly, to a method and apparatus for patent search services for effectively searching prior art patents.

Currently, securing industrial properties is closely related to the competitiveness of an enterprise. There are often cases in which an enterprise that has developed a new product, without recognizing the existence of a prior art patent right, becomes involved in a patent dispute or must pay a significant amount of royalties, thus imposing strains on management and pressure to relinquish the new product.

These days, people live in the era of so-called "patent wars" in which the success of business is governed by the securing of valid industrial properties.

In order to survive in such an environment, an enterprise needs to establish a comprehensive patent strategy for prospective products. There is an urgent need for preparing measures, such as preventing a patent dispute in advance and reducing payments on royalties by pursuing development of related core technology and patent evasion design.

In an effort to meet such requirements, thorough analysis of industrial properties of related technologies and the determination of technology development directions based on said analysis are first required. Such efforts may include information analysis of the existence of prior generic patent rights, the possibility of avoiding generic patent rights, technical development trends of competitors, and the like.

As described above, a prior art patent search should be performed to confirm the existence of prior industrial properties, i.e., prior art patents.

In a conventional prior art patent search, a user connects to an Internet site that provides patent search services and then inputs a search keyword for prior art patents. Prior art patents related to the search keyword are then searched from patent publications and provided to the user.

Here, the prior art patents searched in relation to the search keyword include bibliographical information such as application numbers, applicants, and inventors, as well as abstracts and claims, which are contained in the patent publications.

However, since the conventional prior art patent search provides only the information contained in the patent publications, ordinary people without expertise on the patent system may not know whether the searched prior art patents would be patentable.

Furthermore, according to the conventional prior art patent search, since a user does not have expertise in the patent system, the user may not recognize actions that could prevent registration of the prior art patents, such as providing information for the searched prior art patents, opposing the grants of patents or other such actions for exercising rights.

[Technical Problem to be Solved by the Invention]

The present invention is conceived to solve various problems in the prior art. It is one object of the present invention to provide a method and apparatus for patent search services,

wherein expert comments on searched patents are additionally provided to the user of the services.

Another object of the present invention is to provide a method and apparatus for patent search services, wherein competitors are searched and expert comments on the searched competitors are additionally provided to a user of the services.

A further object of the present invention is to provide a method and apparatus for patent search services, wherein countermeasures against searched prior art patents are provided.

[Constitution and Function of the Invention]

To achieve the aforementioned aims, the present invention is characterized by providing a method and apparatus for patent search services comprising: receiving search keywords for a prior art patent search from the outside; searching for prior art patents corresponding to the search keywords from patent publications stored in advance; outputting prior art patent search results; receiving a comment write request for the outputted prior art patents; outputting a comment write screen in response to the comment write request; receiving comments about the prior art patents -- at least on either the patentability with respect to the prior art patents or countermeasures against the prior art patents -- through the comment write screen; and outputting a prior art patent search result screen containing the comments.

Another aspect of the present invention provides a method and apparatus for competitor search services, comprising: receiving search keywords for a search of competitors from the outside; searching for competitors corresponding to the search keywords from competitor information stored in advance; outputting search results regarding competitors; receiving a comment write request for the outputted competitors; outputting a comment write screen in response to the comment write request; receiving comments on competitors through the comment write screen; and outputting a competitor search result screen containing the comments.

A further aspect of the present invention provides a method and apparatus for patent search services using a patent search server to which at least one service subscriber and a patent expert are connected through a network, comprising: receiving search keywords for a prior art patent search from the service subscriber; searching for prior art patents corresponding to the search keywords from patent publications stored in advance; transmitting prior art patent search results to the service subscriber; receiving a comment write request for the outputted prior art patents from the service subscriber; transmitting a comment write screen to the patent expert in response to the comment write request; receiving comments about the prior art patents at least on either the patentability with respect to the prior art patents or countermeasures against the prior art patents from the patent expert through the comment write screen; and transmitting a prior art patent search result screen containing the comments to the service subscriber.

Hereinafter, preferred embodiments of a method and apparatus for patent search services according to the present invention will be described in detail with reference to the accompanying drawings.

Fig. 1 is a schematic view of the configuration of an apparatus for patent search services according to the present invention.

Referring to Fig. 1, the apparatus for patent search services according to the present invention comprises a patent publication storage unit 100, an input unit 102, a control unit 104, a display unit 106, and a search result storage unit 108.

Here, the apparatus for patent search services can be constructed in the form of an information terminal, such as a PC terminal, with a patent search program installed therein.

That is, the patent publication storage unit 100 is a memory device, such as ROM or RAM, in which information regarding laid-open patent which are published after the period for laying open has passed after filing and registered patents are stored. The patent publication information is updated as new patents are published.

The input unit 102 is a keyboard for receiving external signals from a terminal user and receiving a keyword for searching patents or comment information from the terminal user. At this time, the terminal user is a patent expert such as a patent attorney or patent engineer who has expertise sufficient to assess patentability with regard to a prior art patent or to suggest countermeasures against the prior art patent.

When a patent search request signal is received from the terminal user through the input unit 102, the control unit 104 outputs a screen for receiving a search keyword for searching patents to the display unit 106. Here, the control unit 104 stores a program for searching patents and adding comments to searched patents.

Fig. 2 shows an example of an input screen for inputting a search keyword for a patent search.

Referring to Fig. 2, the search keyword input screen contains search keyword input windows 200, operator selection boxes 202 for selecting operators regarding search keywords inputted through the search keyword input windows 200, the search start icon 204, and the modification icon 206.

A terminal user inputs search keywords for a patent search into search keyword input windows 200 by means of Fig. 2 displayed on the display unit 106 and selects operators regarding the plurality of inputted search keywords through operator selection boxes 202.

Herein, the search keyword is any one of an index word, application number, Laid-open publication number, registration number, inventor, applicant, etc., and the operator is at least any one of disjunction (OR) and conjunction (AND).

When the terminal user clicks the search start icon 204 after selecting search keywords and operators through Fig. 2, the control unit 104 receives the search keywords from the terminal user through the input unit 102.

The control unit 104 starts a search in response to the input of the search keywords. While searching the patent publications stored in the patent publication storage unit 100, the control unit 104 searches for related prior art patents corresponding to the search keywords and stores the prior art patents in the search result storage unit 108. Here, the related prior art patents include utility model registrations as well as patents.

In addition, the control unit 104 displays patent search results, which are stored in the search result storage unit 108, to the terminal user through the display unit 106.

Fig. 3 shows an example of a search result screen for prior art patents.

Referring to Fig. 3, the search result screen for prior art patents contains the field for displaying the number of searched patents 300 and the table 310 for displaying the searched patents.

The searched patent display table 310 includes a document type field, the application number, the title of the invention, relevancy, and the selection field 312.

Here, the document type field classifies the searched prior art patents into laid-open patent, registered patent, laid-open utility model, registered utility model registration, etc., and the relevancy field indicates the degree of relevancy according to the search keywords. The selection field 312 has a selection box for selecting all or some of the searched prior art patents.

After the terminal user clicks on the title of the invention shown in the invention title field in the searched patent display table 310, and if a detailed description of the invention is requested, the control unit 104 searches the patent publication storage unit 100 and outputs a detailed description of the prior art patent corresponding to the clicked title on the display unit 106.

Fig. 4 shows an example of a detailed information output screen for a searched patent.

Referring to Fig. 4, the detailed patent information output screen includes the title of the invention, document type, laid-open publication number, application number, abstract, and claims, and includes the comment write icon 400 for adding comments to the corresponding patent. When the terminal user clicks the comment write icon 400, the input unit 102 outputs a comment write request signal to the control unit 104, and the control unit 104 displays a comment input screen through the display unit 106 in response to the comment write request signal.

Fig. 5 shows an example of a comment write screen.

Referring to Fig. 5, the comment write screen includes the comment input field 500 and the confirmation icon 502.

When the terminal user inputs comments on a prior art patent into the comment input field 500 and clicks the confirmation icon 500, the input unit 102 outputs the comments inputted by the terminal user to the control unit 104, and the control unit 104 stores the comments inputted from the input unit 102 in the search result storage unit 108 and displays search results with comments through the display unit 106.

Here, comments include patentability based on the determination of novelty and inventiveness of a prior art patent inputted by the terminal user or countermeasures against the prior art patent. Countermeasures consist of information regarding actions for preventing the registration of the searched prior art patent or for exercising rights such as providing information regarding the prior art patent, opposing the grant of the patent, or sending a warning notice.

Fig. 6 shows an example of a patent search result screen including comments. The screen includes the search keyword 600, the search result table 610, and the confirmation icon 620.

The search keyword 600 indicates the keywords of the patent search inputted by the terminal user and the search result table 610 includes summary information (e.g., document type, application number, and invention title) regarding the prior art patents searched by the search keywords and the comments view icon 612 for confirming comment information regarding the patents.

If the terminal user clicks the comment view icon 612, the control unit 104 searches the search result storage unit 108 and displays comments on the corresponding patent through the display unit 106.

Then, when the terminal user clicks the confirmation icon 620, the patent search process is completed. Here, the control unit 104 provides the prior art patent search results

which are outputted through the display unit 106 or prior art patent search results including comments, to a service requester through an alternate method such as printing.

In addition, the control unit 104 can store the prior art patent search results in a certain storage medium such as a diskette and provide said medium to the service requester.

Meanwhile, if the service requester has his or her own patent application or registered patent, i.e., a subject patent, the apparatus for patent search services according to the present invention further comprises a separate storage unit (not shown) for storing the subject patent of the service requester.

That is, the control unit 104 displays an input screen for inputting a subject patent through the display unit 106 in response to a subject patent input request from the terminal user, which is inputted through the input unit 102.

Fig. 7 shows an example of a subject patent input screen according to the present invention, which includes at least the document selection box 700, the application number input field 702, the title input field 704, the modification icon 706, and the confirmation icon 708.

The document selection box 700 selects the document type of a subject patent and the application number input field 702 and the title input field 704 are used to input the application number and invention title of the subject patent.

If the terminal user inputs information regarding the subject patent through Fig. 7 and clicks the confirmation icon 708, the control unit 104 stores the subject patent information in a separate storage unit for storing subject patents of the service requester.

Then, when the terminal user inputs a search request signal through the input unit 102 in order to input a subject patent as a search keyword when inputting keywords for a patent search, the control unit 104 displays a subject patent selection screen through the display unit 106.

Fig. 8 shows an example of a subject patent selection screen that includes the subject patent selection field 800, the addition icon 802, and the confirmation icon 804.

If the terminal user requests a search of predetermined subject patents after inputting a plurality of subject patents through Fig. 7, the control unit 104 displays the subject patent selection screen shown in Fig. 8 through the display unit 106.

If the terminal user selects a subject patent from the subject patent selection field 800 and clicks the confirmation icon 804, the control unit 104 searches for prior art patents related to the selected subject patent among the prior art patents stored in the patent publication storage unit 100 and displays the prior art patents through the display unit 106.

A method for patent search services according to the present invention that is configured and operated as above will be described in detail with reference to the accompanying drawings.

Fig. 9 is a flowchart illustrating the execution for patent search services according to the present invention.

First, the control unit 104 receives search keywords for a prior art patent search through the input unit 102 (S900), searches the patent publication storage unit 100 according to the inputted search keywords, and searches for prior art patents related to the search keywords (S902).

Then, the control unit 104 displays the searched prior art patents through the display unit 106 (S904).

The control unit 104 determines whether a comment write request signal for a

displayed prior art patent is inputted (S906), and if the comment write request signal is inputted, displays a comment write screen for the searched prior art patent through the display unit 106 (S908).

Next, the control unit 104 receives comments from the terminal user through the comment write screen and stores the comments in the search result storage unit 108 together with the searched prior art patent (S910).

The control unit 104 displays the prior art patent including comments through the display unit 106 (S912) and outputs the prior art patent through a process such as printing.

Fig. 10 is a schematic view of the configuration of a competitor service apparatus according to the present invention.

Referring to Fig. 10, the competitor service apparatus according to the present invention comprises the competitor information storage unit 1000, the input unit 1002, the control unit 1004, the display unit 1006, and the search result storage unit 1008.

Here, the competitor search service apparatus can be constructed in such a way that an information terminal, such as a PC terminal, with a competitor search program installed therein.

The competitor information storage unit 1000 stores in advance, enterprise information such as the company name, business type and management achievements.

The input unit 1002 receives a competitor search request from the terminal user and outputs it to the control unit 1004, and the control unit 1004 displays a search keyword input screen for a competitor search through the display unit 1006.

When the terminal user inputs search keywords such as an index word, a company name or a business type related to an enterprise to be searched through the search keyword input screen by using the input unit 1002, the control unit 1004 searches for enterprise information stored in the competitor information storage unit 1000 and searches for related competitors according to the inputted search keywords, and displays through the display unit 1006. At this time, the control unit 1004 stores information on the searched relevant competitors in the search result storage unit 1008.

Fig. 11 is a view showing an example of a competitor search result screen according to the present invention.

Referring to Fig. 11, the competitor search result screen includes a field for displaying the number of searched competitors 1100 and a competitor search result table 1110.

Here, the competitor search result table 1110 includes a competitor business type field 1112, a competitor name field 1114, a relevancy field 1116, and a selection field 1118.

The business type field 1112 and the competitor name field 1114 shows the business type and the company name of a competitor, and the relevancy field 1116 shows the relevance according to the search keywords. The selection field 1118 is for selecting some of the searched competitors.

If the terminal user clicks the company name of a searched competitor on the competitor search result screen of Fig. 11, the control unit 1004 displays detailed information on the clicked competitor through the display unit 1006.

Fig. 12 is a view showing an example of a detailed competitor information screen according to the present invention.

Referring to Fig. 12, the detailed competitor information screen includes information on the company name, business type, company profile, management achievements, etc.

In addition, the detailed competitor information screen contains a comment write icon 1200, and the comment write icon 1200 is to request a comment input of a corresponding competitor.

If the terminal user clicks the comment write icon 1200 of Fig. 12, the control unit 1004 displays a comment input screen having the same form with Fig. 5 through the display unit 1006.

Then, if the terminal user inputs comments through the comment input screen shown in Fig. 5, the control unit 1004 stores the inputted comments in the search result storage unit 1008 and displays a competitor search result including comments through the display unit 1006.

Fig. 13 is a view showing an example of a competitor search result screen including comments according to the present invention.

Referring to Fig. 13, a search keyword 1300 and a competitor search result table 1310 are included, and the competitor search result table 1310 includes comment view icons 1312.

When the terminal user clicks the comment view icon 1312 in the competitor search result table 1310, the control unit 1004 searches the search result storage unit 1008 and displays comments on the competitor through the display unit 1006.

Here, the control unit 1004 outputs the searched competitor information and competitor information including comments, which are displayed through the display unit 1006, by a means, such as printing.

A method for competitor search services in the apparatus for competitor search services according to the present invention that is configured and operated as above will be described in detail with reference to the accompanying drawings.

Fig. 14 is a flowchart illustrating execution of competitor search services according to the present invention.

First, the control unit 104 receives search keywords for a competitor search from the terminal user through the input unit 102 (S1400), and searches the competitor information storage unit 1000 according to the inputted search keywords and searches for competitors related to the search keywords (S1402).

Then, the control unit 1004 displays the searched competitors through the display unit 1006 (S1404).

The control unit 1004 determines whether a comment write request signal for a displayed competitor is inputted (S1406), and if the comment write request signal is inputted, displays a comment write screen for the searched competitor through the display unit 1006 (S1408).

Then, the control unit receives comments from the terminal user through the comment write screen and stores the comments in the search result storage unit 1008 together with the searched competitor information (S1410).

The control unit 1004 displays competitor information including comments through the display unit 1006 (S1412) and outputs the information through a process such as printing.

Hereinafter, a method and apparatus for patent search services on the Internet according to the present invention will be described in detail with reference to the accompanying drawings.

Fig. 15 is a view schematically showing the configuration of a patent search service apparatus on the Internet according to the present invention, and Fig. 16 is a view showing an

example of a detailed result screen of a prior art patent on the Internet according to the present invention, and Fig. 17 is a view showing the operational configuration of a patent search service apparatus on the Internet according to the present invention.

Referring to Fig. 15, the patent search service apparatus on the Internet according to the present invention comprises a service subscriber terminal 1500, a patent search server 1510, a database 1520, and a patent expert terminal 1530.

Here, the database 1520 comprises a service subscriber information database 1522, a patent publication database 1524, and a search result database 1526.

The service subscriber database 1522 stores in advance personal information such as a service subscriber's identification (ID), a password, etc., and subject technique information such as patent applications or registered patents of the subscriber.

The patent publication database 1524 stores in advance laid-open patents which are published after the period for laying open an application has passed upon filing and registered patents, and it is updated in real time.

In addition, the search result database 1526 stores prior art patents searched by a service subscriber's request.

The service subscriber terminal 1500 and the patent expert terminal 1530 are connected to the patent search server 1510 through the Internet.

The patent search service operation configured as such will be described with reference to Fig. 17.

First, the service subscriber terminal 1500 transmits a patent search request signal inputted by a service subscriber to the patent search server 1510 connected through the Internet.

The patent search server 1510 receives the patent search request signal from the service subscriber terminal 1500 and transmits a search keyword input screen for a patent search shown in Fig. 2 to the service subscriber terminal 1500 in response to the received patent search request signal.

If the subscriber inputs the prior art patent search keywords into the search keyword input fields 200 through the search keyword input screen received at the service subscriber terminal 1500 and clicks the search start icon 204, the service subscriber terminal 1500 transmits the search keywords inputted by the service subscriber to the patent search server 1510 (S1700).

Here, the search keywords include at least one index word, an application number, a laid-open publication number, a registration number, an applicant and an inventor.

In addition, if a service subscriber has subject patents filed by or issued to the service subscriber, the service subscriber can input the subject patents as search keywords when inputting the search keywords.

The patent search server 1510 searches for prior art patents related to the search keywords received from the service subscriber terminal 1500 among the patent publications stored in the patent publication database 1524 (S1702).

Then, the patent search server 1510 constructs the prior art patent search result into a screen shown in Fig. 3 and transmits the screen to the service subscriber terminal 1500 (S1704).

The service subscriber selects a prior art patent for which patent expert's comment information is required among the search result outputted to the service subscriber terminal 1500 through the selection field 312 shown in Fig. 3, thereby inputting a comment request

signal (S1706).

The service subscriber terminal 1500 transmits the comment request signal inputted by the service subscriber to the patent search server 1510 connected through the Internet (S1708), and the patent search server 1510 transmits the comment request signal received from the service subscriber terminal 1500 to the patent expert terminal 1530 connected through the Internet (S1710).

At this time, the patent search server 1510 transmits the comment-requested prior art patent to the patent expert terminal 1530 together with the comment request signal.

A patent expert inputs a detailed patent information request signal for the prior art patent received at the patent expert terminal 1530, and the patent expert terminal 1530 transmits the detailed patent information request signal inputted by the patent expert to the patent search server 1510.

The patent search server 1510 searches the patent publication database 1524 in response to the received detailed patent information request and transmits detailed patent information shown in Fig. 4 to the patent expert terminal 1530.

The patent expert confirms the detailed patent information received at the patent expert terminal 1530 and transmits a comment write request signal to the patent search server 1510 through the patent expert terminal 1530 by clicking the comment write icon.

The patent search server 1510 transmits a comment input screen shown in Fig. 5 to the patent expert terminal 1530 in response to the comment write request signal received from the patent expert terminal 1530.

The patent expert inputs the patentability of a patent based on determination of novelty and inventiveness of the prior art patent inputted by the terminal user or countermeasures against the prior art patent into the comment input field 500 (S1712) and transmits the comments to the patent search server 1510 through the patent expert terminal 1530 (S1714).

Here, the countermeasures against the prior art patents include preventing the registration of the prior art patents such as opposing the grant of the patents or providing information, and exercising service subscriber's rights such as sending a warning notice, etc.

Next, the patent search server 1510 transmits the prior art patent search result including the comments received from the patent expert terminal 1530 to the service subscriber terminal 1500 through a screen shown in Fig. 6 (S1716). At this time, the patent search server 1510 stores the comment received from the patent expert terminal 1530 in the search result database 1526.

When the service subscriber clicks the comments view icon 612 in the search result screen of Fig. 6 received at the service subscriber terminal 1500, the service subscriber terminal 1500 transmits a comment view request signal to the patent search server 1510.

The patent search server 1510 searches the search result database 1526 in response to the comment view request signal received from the service subscriber terminal 1500 and transmits comments on the corresponding prior art patent to the service subscriber terminal 1500.

Meanwhile, when the patent search server 1510 receives a detailed result request signal for the prior art patent from the service subscriber terminal 1500, the patent search server constructs a detailed result output screen as shown in Fig. 16 and transmits the screen to the service subscriber terminal 1500.

Referring to Fig. 16, the detailed result output screen includes bibliographical

information 1600 such as the title of the invention, document type, laid-open publication number, abstract 1602, claims 1604 and comments 1606.

The service subscriber confirms the detailed result of the corresponding prior art patent through the screen received at the service subscriber terminal 1500 as shown in Fig. 16.

Here, in order to process a procedure according to the countermeasures against prior art patents included in the comments 1606 (S1718), the service subscriber transmits a request signal for countermeasures against prior art patents to the patent search server 1510 through the service subscriber terminal 1500 (S1720).

Particularly, the patent search server 1510 transmits the received countermeasure request signal to the patent expert terminal 1530 (S1722), and the patent expert performs actions for preventing registration of the prior art patent or exercising service subscriber's rights in response to the countermeasure request signal received through the patent expert terminal 1530 (S1724).

The patent expert notifies the service subscriber of the result of the countermeasures against prior art patents through the patent search server 1510.

On the other hand, the service subscriber can directly perform the actions for preventing registration of the prior art patents or exercising service subscriber's rights according to the countermeasures against the prior art patents confirmed through the comments 1606.

The method for patent search services in the apparatus for patent search services according to the present invention on the Internet, which is configured and operated as above, will be described with reference to the accompanying drawings.

Fig. 18 is a flowchart illustrating execution of patent search services on the Internet according to the present invention.

First, the patent search server 1510 receives patent search keywords for a prior art patent search from the service subscriber (S1800) and searches for related prior art patents among the patent publications stored in the patent publication database 1524 according to the received patent search keywords (S1802).

Then, the patent search server 1510 transmits the searched prior art patents to the service subscriber (S1804) and determines whether a comment request signal for a searched prior art patent is received from the service subscriber (S1806).

At this time, the service subscriber transmits the comment request signal to the patent search server 1510 by selecting a prior art patent for which comments are to be requested, among the prior art patents received from the patent search server 1510.

If the comment request signal is received from step S1806 (S1808), the patent search server 1510 transmits a comment request for the prior art patent corresponding to the comment request signal received from the service subscriber to the patent expert terminal 1530 (S1810).

Next, the patent search server 1510 receives comments on the prior art patent from the patent expert terminal 1530 (S1812) and transmits a prior art patent search result including the received comments to the service subscriber terminal 1500 (S1814).

Here, the service subscriber transmits a countermeasure request signal for conducting the countermeasures against the prior art patent, which is included in the comments, to the patent search server 1510 through the service subscriber terminal 1500, and the patent search server 1510 transmits the received countermeasure request signal against the prior art patent

to the patent expert terminal 1530.

With the aforementioned procedures, the patent expert automatically takes cases of countermeasures against prior art patents from the service subscriber and performs actions for the received cases of countermeasures against prior art patents.

On the other hand, the service subscriber may directly perform actions for the countermeasures against the searched patents according to the countermeasures against the prior art patents.

[Benefit of the Invention]

In the method and apparatus for patent search services according to the present invention, prior art patents searched according to patent search keywords provide the service subscriber with not only information on the prior art patents included in patent publications, but also prior art patent information including comments in which countermeasures against the prior art patents, etc. are added by a patent expert.

Therefore, according to the present invention, an ordinary service requester without expertise on the patent system can further easily understand the searched prior art patents, thus the level of satisfaction on the use of the services can be increased.

Further, since the present invention provides countermeasures against the searched prior art patents, a service requester can effectively perform proper countermeasures.

Furthermore, according to the present invention, as a service requester requests to perform countermeasures confirmed through comments, a patent expert can automatically take the corresponding case on the behalf of the service requester, thus the level of satisfaction provided by the patent expert can be increased.

Although the present invention has been described in relation to the specific preferred embodiments, it will be readily understood by those skilled in the art that various adaptations and changes can be made thereto without departing from the spirit and scope of the present invention defined by the appended claims.

[Claims]

Claim 1:

A method for patent search services, characterized by comprising the steps of:

receiving search keywords for a prior art patent search from the outside;
searching for prior art patents corresponding to the search keywords from patent publications stored in advance;
outputting a prior art patent search result;
receiving a comment write request for the outputted prior art patents;
outputting a comment write screen in response to the comment write request;
receiving comments on the prior art patents through the comment write screen, the comments including at least the patentability of the prior art patents or countermeasures against the prior art patents; and
outputting a prior art patent search result screen including the comments.

Claim 2:

The method as claimed in claim 1, characterized by further comprising:

receiving a subject patent input request from the outside;
outputting a subject patent input screen in response to the received request;
receiving subject patent information through the subject patent input screen; and
storing the inputted subject patent information.

Claim 3:

The method as claimed in claim 1, characterized in that the prior art patent search result screen including the comments includes publication information and the comments on the searched prior art patents.

Claim 4:

The method as claimed in claim 1, characterized in that the countermeasures against the prior art patents include at least one of a plan for preventing registration of the prior art patents and a plan for exercising rights on the prior art patents.

Claim 5:

The method as claimed in claim 4, characterized in that the plan for preventing the registration of the prior art patents is providing information or opposing a grant of the patents, and the plan for exercising rights is at least sending a warning notice.

Claim 6

A method for competitor search services, characterized by comprising the steps of:

receiving search keywords for a competitor search from the outside;
searching for competitors corresponding to the search keywords from competitor information stored in advance;
outputting a prior art patent search result;
receiving a comment write request for the outputted competitors;
outputting a comment write screen in response to the comment write request;
receiving comments on the competitors through the comment write screen; and
outputting a competitor search result screen including the comments.

Claim 7:

A method of patent search services using a patent search server to which at least one service subscriber and a patent expert are connected through a network, the method comprising:

receiving search keywords for a prior art patent search from the service subscriber;
searching for prior art patents corresponding to the search keywords from patent publications stored in advance;
transmitting a prior art patent search result to the service subscriber;
receiving a comment write request for the outputted prior art patents from the service subscriber;

transmitting a comment write screen to the patent expert in response to the comment write request;
receiving comments on the prior art patents from the patent expert through the comment write screen, the comments including one of the patentability of the prior art patents or countermeasures against the prior art patents; and
transmitting a prior art patent search result screen including the comments to the service subscriber.

Claim 8:

The method as claimed in claim 7, characterized by further comprising:

receiving a countermeasure request against the prior art patents from the service subscriber;
transmitting the received countermeasure request to the patent expert; and
transmitting a result of the countermeasures against the prior art patents performed by the patent expert to the service subscriber.

Claim 9:

The method as claimed in claim 7, characterized in that the countermeasures against the prior art patents include at least one of a plan for preventing registration of the prior art patents and a plan for exercising rights on the prior art patents.

Claim 10:

The method as claimed in claim 9, characterized in that the plan for preventing the registration of the prior art patents is providing information or opposing grant of the patents, and the plan for exercising rights is at least sending a warning notice.

Claim 11:

An apparatus of patent search services, characterized by comprising:

a patent publication storage unit for storing patent publications;
an input unit for receiving search keywords for a prior art patent search, or comments on the searched prior art patents from the outside;
a control unit for searching for prior art patents corresponding to the search keywords received through the input unit among the patent publications stored in the patent publication storage unit, and outputting a prior art patent search result including comment information on the searched prior art patents;
a search result storage unit for storing, by the control unit, the prior art patent search result; and
a display unit for displaying the search result outputted from the control unit.

Claim 12:

A method of patent search services using a patent search server to which at least one service subscriber and a patent expert are connected through a network, characterized by comprising:

a memory unit for storing a program; and
a processing unit coupled with the memory so as to execute the program,
wherein the processing unit executes, by the program, the steps of:
receiving search keywords for a prior art patent search from the service subscriber;
searching for relevant prior art patents from patent publications stored in advance, according to the search keywords;
transmitting a prior art patent search result to the service subscriber;
receiving a comment write request for the outputted prior art patents from the service subscriber;
transmitting a comment write screen to the patent expert in response to the comment write request;
receiving comments on the prior art patents from the patent expert through the comment write screen, the comments including at least one of patentability of the prior art patents or countermeasures against the prior art patents; and
transmitting a prior art patent search result screen including the comments to the service subscriber.

Claim 13:

The apparatus as claimed in claim 12, characterized in that the processing unit further executes, by the program, the steps of:

receiving a countermeasure request against the prior art patents from the service subscriber;
transmitting the received countermeasure request to the patent expert; and
transmitting a result of the countermeasures against the prior art patents performed by the patent expert to the service subscriber.

Claim 14:

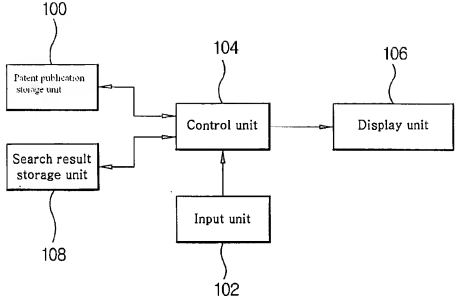
The apparatus as claimed in claim 12, characterized in that the countermeasures against the prior art patents include at least one of a plan for preventing registration of the prior art patents and a plan for exercising rights on the prior art patents.

Claim 15:

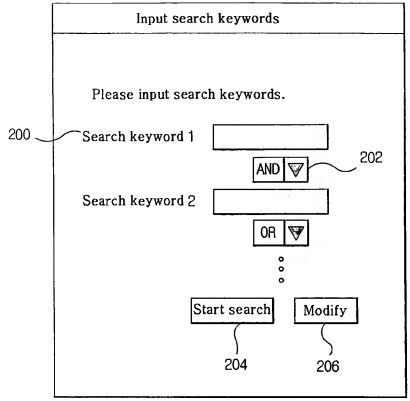
The apparatus as claimed in claim 14, characterized in that the plan for preventing the registration of the prior art patents is providing information or opposing a grant of the patents, and the plan for exercising rights is at least sending a warning notice.

[DRAWINGS]

[Fig. 1]



[Fig. 2]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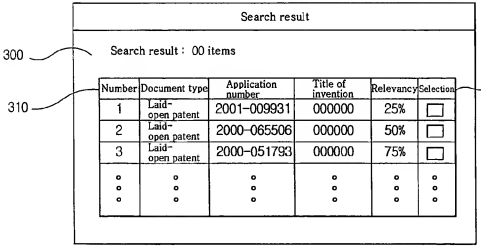
Please input search keywords.
200
Search keyword 1
AND
202
Search keyword 2
OR
Start search
Modify
204
206

[Fig. 3]


Search result
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Search result : 00 items
310
312
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Application number
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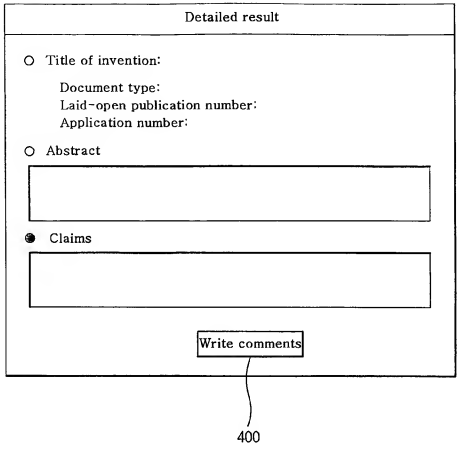
25%
2
Laid-open patent
2000-065506
000000
50%
3
Laid-open patent
2000-051793
000000
75%

[Fig. 4]


Detailed result
Title of invention:
Document type:
Laid-open publication number:
Application number:
Abstract
Claims
Write comments
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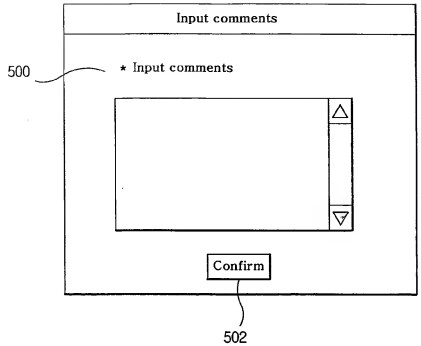
[Fig. 5]


Input comments
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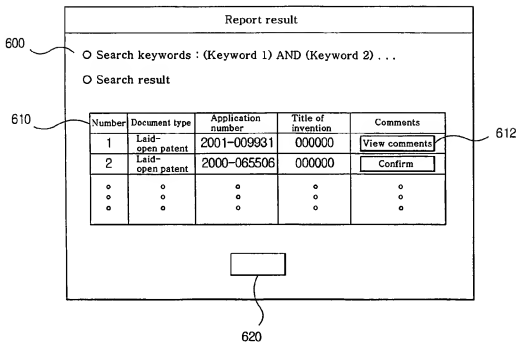
* Input comments
Confirm
502

[Fig. 6]


Report result
600
O Search keywords : (Keyword 1) AND (Keyword 2) . . .
O Search result
610
Number
Document type
Application number
Title of invention
Comments
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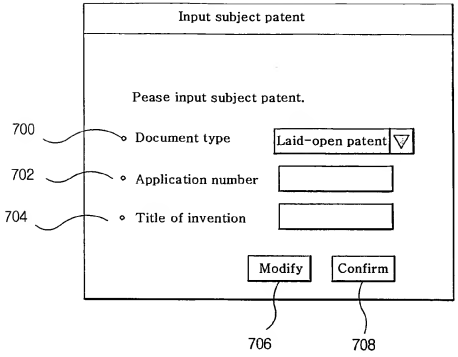
Laid-open patent
2001-009931
000000
View comments
612
2
Laid-open patent
2000-065506
000000
Confirm
620

[Fig. 7]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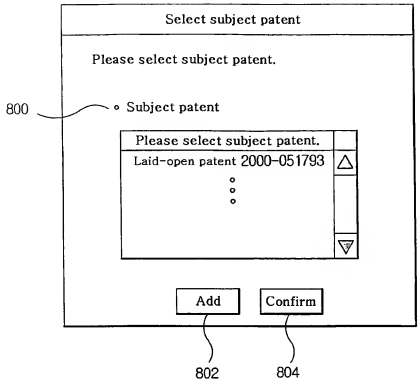
Laid-open patent
702
Application number
704
Title of invention
Modify
Confirm
706
708

[Fig. 8]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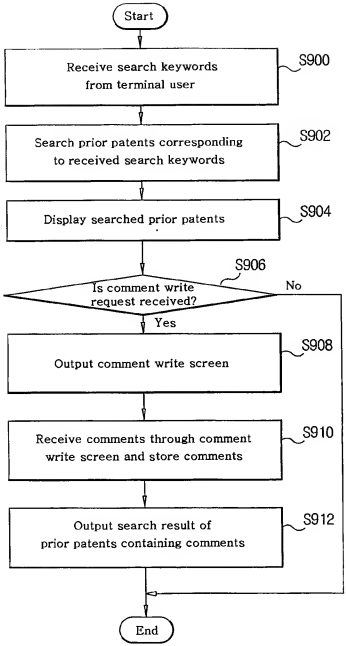
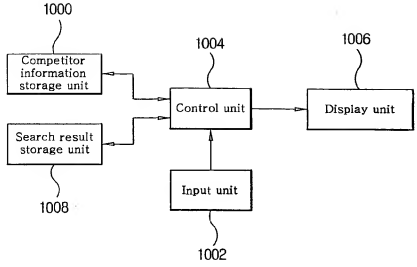
Subject patent
Please select subject patent.
Laid-open patent 2000-051793
Add
Confirm
802
804

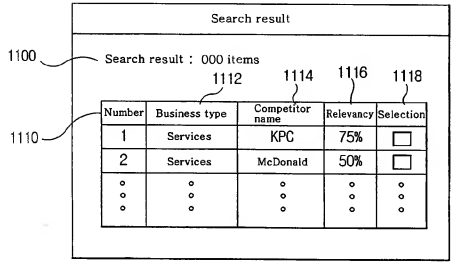
[Fig. 9]


Start
Receive search keywords from terminal user
S900
Search prior patents corresponding to received search keywords
S902
Display searched prior patents
S904
S906
Is comment write request received?
No
Yes
Output comment write screen
S908
Receive comments through comment write screen and store comments
S910
Output search result of prior patents containing comments
S912
End

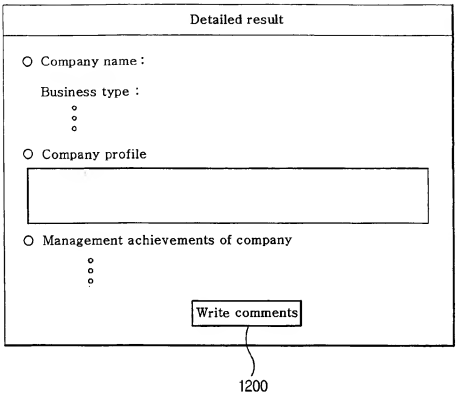
[Fig. 10]


1000
Competitor information storage unit
1004
Control unit
1006
Display unit
Search result storage unit
1008
Input unit
1002

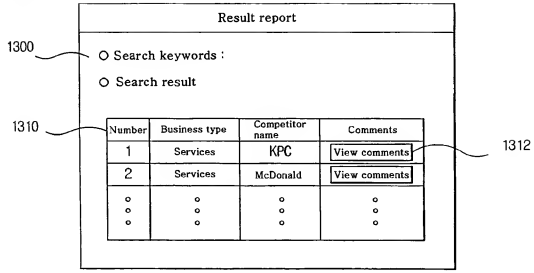
[Fig. 11]


Search result
1100
Search result : 000 items
1112
1114
1116
1118
1110
Number
Business type
Competitor name
Relevancy
Selection
1
Services
KPC
75%
2
Services
McDonald
50%

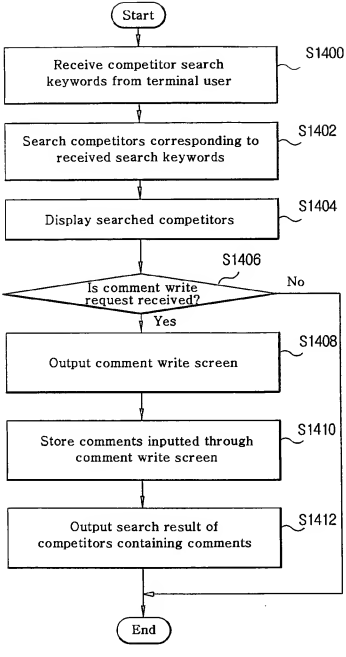
[Fig. 12]


Detailed result
○ Company name :
Business type :
○ Company profile
○ Management achievements of company
Write comments
1200

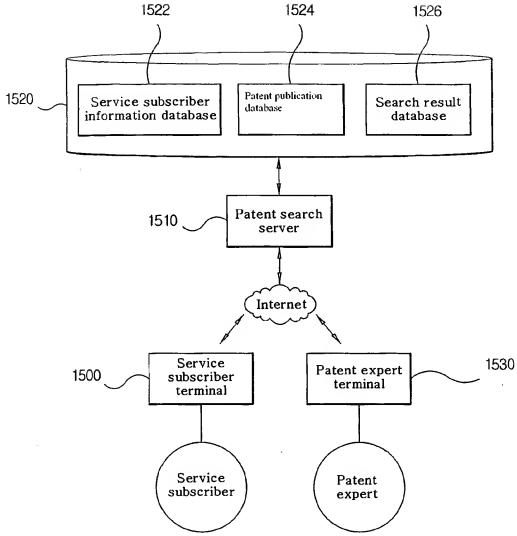
[Fig. 13]


Result report
1300
○ Search keywords :
○ Search result
1310
Number
Business type
Competitor name
Comments
1
Services
KPC
View comments
2
Services
McDonald
View comments
1312

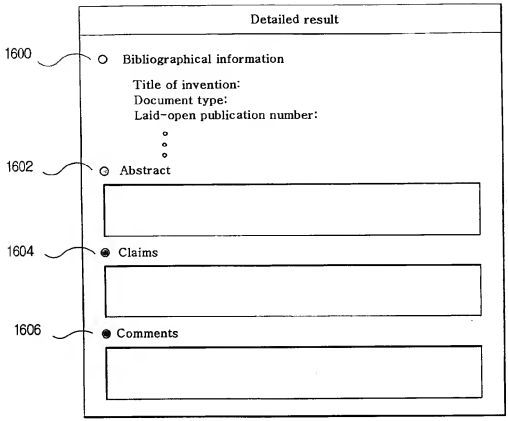
[Fig. 14]


Start
Receive competitor search keywords from terminal user
S1400
Search competitors corresponding to received search keywords
S1402
Display searched competitors
S1404
S1406
Is comment write request received?
No
Yes
Output comment write screen
S1408
Store comments inputted through comment write screen
S1410
Output search result of competitors containing comments
S1412
End

[Fig. 15]


1522
1524
1526
1520
Service subscriber information database
Patent publication database
Search result database
1510
Patent search server
Internet
1500
Service subscriber terminal
Patent expert terminal
1530
Service subscriber
Patent expert

[Fig. 16]


Detailed result
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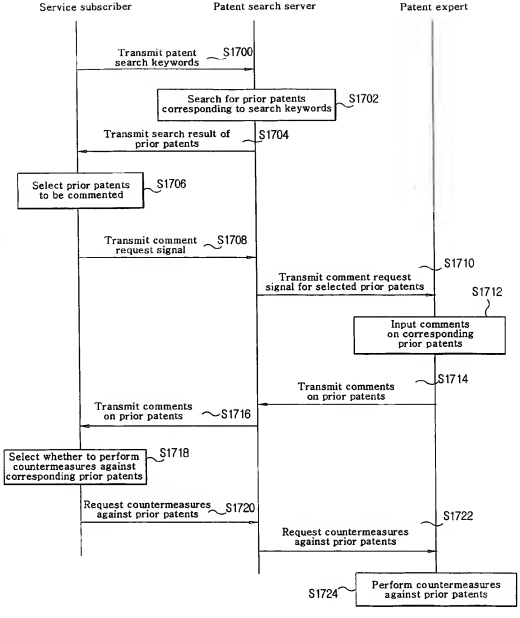
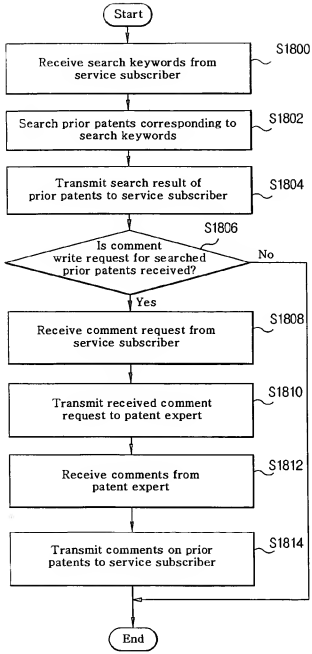
Bibliographical information
Title of invention:
Document type:
Laid-open publication number:
1602
Abstract
1604
Claims
1606
Comments

[Fig. 17]


Service subscriber
Patent search server
Patent expert
Transmit patent search keywords
S1700
Search for prior patents corresponding to search keywords
S1702
Transmit search result of prior patents
S1704
Select prior patents to be commented
S1706
Transmit comment request signal
S1708
S1710
Transmit comment request signal for selected prior patents
S1712
Input comments on corresponding prior patents
S1714
Transmit comments on prior patents
Transmit comments on prior patents
S1716
Select whether to perform countermeasures against corresponding prior patents
S1718
Request countermeasures against prior patents
S1720
S1722
Request countermeasures against prior patents
S1724
Perform countermeasures against prior patents

[Fig. 18]


Start
Receive search keywords from service subscriber
S1800
Search prior patents corresponding to search keywords
S1802
Transmit search result of prior patents to service subscriber
S1804
S1806
Is comment write request for searched prior patents received?
No
Yes
Receive comment request from service subscriber
S1808
Transmit received comment request to patent expert
S1810
Receive comments from patent expert
S1812
Transmit comments on prior patents to service subscriber
S1814
End